

**United States Patent Application**  
**DECLARATION**

As a below named inventor, we hereby declare that our residences, post office addresses and citizenships are as stated below next to our names; that

We verily believe we are the original, first and joint inventors of the subject matter which is claimed and for which a patent is sought on the invention entitled DIGITAL SINE/COSINE WAVE GENERATOR, the specification of which is attached hereto.

We hereby state that we have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

We acknowledge the duty to disclose information which is material to the patentability of this application in accordance with Title 37, Code of Federal Regulations, § 1.56 (described hereinbelow).

We hereby claim foreign priority benefits under Title 35, United States Code, § 119/365 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on the basis of which priority is claimed:

- a. ☒ no such applications have been filed.  
b. ☐ such applications have been filed as follows:

FOREIGN APPLICATION(S), IF ANY, CLAIMING PRIORITY UNDER 35 USC § 119			
COUNTRY	APPLICATION NUMBER	DATE OF FILING (day, month, year)	DATE OF ISSUE (day, month, year)
ALL FOREIGN APPLICATION(S), IF ANY, FILED BEFORE THE PRIORITY APPLICATION(S)			
COUNTRY	APPLICATION NUMBER	DATE OF FILING (day, month, year)	DATE OF ISSUE (day, month, year)

We hereby claim the benefit under Title 35, United States Code, § 120/365 of any United States and PCT international application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, § 112, we acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, § 1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application.

U.S. APPLICATION NUMBER	DATE OF FILING (day, month, year)	STATUS (patented, pending, abandoned)

We hereby claim the benefit under Title 35, United States Code § 119(e) of any United States provisional application(s) listed below:

U.S. PROVISIONAL APPLICATION NUMBER	DATE OF FILING (Day, Month, Year)
60/236,315	28/09/00

We hereby declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

2	Full Name Of Inventor	Family Name Huang	First Given Name Tony	Second Given Name Chun-Hung
0	Residence & Citizenship	City Longmont	State or Foreign Country Colorado	Country of Citizenship Taiwan
1	Post Office Address	Post Office Address 1221 Fall River Circle	City Longmont	State & Zip Code/Country Colorado 80501/USA
Signature of Inventor 201:			Date: Mar 16, 2001	
2	Full Name Of Inventor	Family Name Ho	First Given Name Hai	Second Given Name Thanh
0	Residence & Citizenship	City Westminster	State or Foreign Country Colorado	Country of Citizenship United States of America
2	Post Office Address	Post Office Address 9724 Kipling Street	City Westminster	State & Zip Code/Country Colorado 80021/USA
Signature of Inventor 202:			Date: 3/16/01	

#### § 1.56 Duty to disclose information material to patentability.

(a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is canceled or withdrawn from consideration, or the application becomes abandoned. Information material to the patentability of a claim that is canceled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§ 1.97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:

- (1) prior art cited in search reports of a foreign patent office in a counterpart application, and
- (2) the closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.

(b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and

- (1) It establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim;
- (2) It refutes, or is inconsistent with, a position the applicant takes in:
  - (i) Opposing an argument of unpatentability relied on by the Office, or
  - (ii) Asserting an argument of patentability.

A prima facie case of unpatentability is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability.

(c) Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:

- (1) Each inventor named in the application:

(2) Each attorney or agent who prepares or prosecutes the application; and

(3) Every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application.

(d) Individuals other than the attorney, agent or inventor may comply with this section by disclosing information to the attorney, agent, or inventor.

## PATENT

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor:	Tony Chun-Hung Huang; Hai Thanh Ho
Serial No.:	
Filed:	
Docket:	STL9923/40046.146USU1

**POWER OF ATTORNEY BY ASSIGNEE OF ENTIRE INTEREST  
(REVOCATION OF PRIOR POWERS)**

As assignee of record of the entire interest of the above identified application,  
**REVOCATION OF PRIOR POWERS OF ATTORNEY**  
 all powers of attorney previously given are hereby revoked and

**NEW POWER OF ATTORNEY**

the following practitioners/patent agent are hereby appointed to prosecute and transact all business in the Patent and Trademark Office connected therewith.

Edward P. Heller, III, Registration No. 29,075	Shawn B. Dempster, Registration No. 34,321
Raghunath S. Mirisandram, Registration No. 38,683	Jonathan E. Olson, Registration No. 41,231
Leland D. Schultz, Registration No. 30,322	Cecilia A. (Peggy) Walsh, Registration No. 45,659
Derek J. Berger, Registration No. 45,401	

And members of the firm of Merchant & Gould P.C.

Albrecht, John W.	Reg. No. 40,481	Holzer, Jr., Richard J.	Reg. No. 42,668
Anderson, Gregg I.	Reg. No. 28,828	Johnston, Scott W.	Reg. No. 39,721
Batzli, Brian H.	Reg. No. 32,960	Kadievitch, Natalie D.	Reg. No. 34,196
Beard, John L.	Reg. No. 27,612	Karjeker, Shaukat	Reg. No. 34,049
Berns, John M.	Reg. No. 43,496	Kettelberger, Denise	Reg. No. 33,924
Black, Bruce E.	Reg. No. 41,622	Keys, Jeramie J.	Reg. No. 42,724
Branch, John W.	Reg. No. 41,633	Knearl, Homer L.	Reg. No. 21,197
Bremer, Dennis C.	Reg. No. 40,528	Kowalchyk, Alan W.	Reg. No. 31,535
Bruess, Steven C.	Reg. No. 34,130	Kowalchyk, Katherine M.	Reg. No. 36,848
Byrne, Linda M.	Reg. No. 32,404	Lacy, Paul E.	Reg. No. 38,946
Carlson, Alan G.	Reg. No. 25,959	Larson, James A.	Reg. No. 40,443
Caspers, Philip P.	Reg. No. 33,227	Liepa, Mara E.	Reg. No. 40,066
Chiapetta, James R.	Reg. No. 39,634	Lindquist, Timothy A.	Reg. No. 40,701
Clifford, John A.	Reg. No. 30,247	Lycke, Lawrence E.	Reg. No. 38,540
Coldren, Richard J.	Reg. No. 44,084	McAuley, Steven A.	Reg. No. 46,084
Daignault, Ronald A.	Reg. No. 25,968	McDonald, Daniel W.	Reg. No. 32,044
Daley, Dennis R.	Reg. No. 34,994	McIntyre, Jr., William F.	Reg. No. P-44,921
Dalglish, Leslie E.	Reg. No. 40,579	Mueller, Douglas P.	Reg. No. 30,300
Daulton, Julie R.	Reg. No. 36,414	Pauly, Daniel M.	Reg. No. 40,123
DeVries Smith, Katherine M.	Reg. No. 42,157	Phillips, John B.	Reg. No. 37,206
DiPietro, Mark J.	Reg. No. 28,707	Plunkett, Theodore	Reg. No. 37,209
Edell, Robert T.	Reg. No. 20,187	Prendergast, Paul J.	Reg. No. 46,068
Epp Ryan, Sandra	Reg. No. 39,667	Pytel, Melissa J.	Reg. No. 41,512
Glance, Robert J.	Reg. No. 40,620	Qualey, Terry	Reg. No. 25,148
Goggin, Matthew J.	Reg. No. 44,125	Reich, John C.	Reg. No. 37,703
Golla, Charles E.	Reg. No. 26,896	Reiland, Earl D.	Reg. No. 25,767
Gorman, Alan G.	Reg. No. 38,472	Schmaltz, David G.	Reg. No. 39,828
Gould, John D.	Reg. No. 18,223	Schuman, Mark D.	Reg. No. 31,197
Gregson, Richard	Reg. No. 41,804	Schumann, Michael D.	Reg. No. 30,422
Gresens, John J.	Reg. No. 33,112	Scull, Timothy B.	Reg. No. 42,137
Hamre, Curtis B.	Reg. No. 29,165	Sebald, Gregory A.	Reg. No. 33,280
Hillson, Randall A.	Reg. No. 31,838		

FOOTNOTES

Skoog, Mark T.  
Spellman, Steven J.  
Stoll-DeBell, Kirstin L.  
Sumner, John P.  
Swenson, Erik G.  
Tellekson, David K.  
Trembath, Jon R.  
Underhill, Albert L.  
Vandenburgh, J. Derek

Reg. No. 40,178  
Reg. No. 45,124  
Reg. No. 43,164  
Reg. No. 29,114  
Reg. No. 45,147  
Reg. No. 32,314  
Reg. No. 38,344  
Reg. No. 27,403  
Reg. No. 32,179

Weaver, Karrie G.  
Welter, Paul A.  
Whipps, Brian  
Wickhem, J. Scot  
Williams, Douglas J.  
Witt, Jonelle  
Wu, Tong  
Xu, Min S.  
Zeuli, Anthony R.

Reg. No. 43,245  
Reg. No. 20,890  
Reg. No. 43,261  
Reg. No. 41,376  
Reg. No. 27,054  
Reg. No. 41,980  
Reg. No. 43,361  
Reg. No. 39,536  
Reg. No. 45,255

## CHANGE OF ATTORNEY'S/AGENT'S ADDRESS IN APPLICATION

Merchant & Gould P.C.  
P.O. Box 2903  
Minneapolis, MN 55402-0903

**STATEMENT UNDER 37 CFR 3.73(b)**

Seagate Technology LLC states that it is the Assignee of Entire Interest in the patent application/patent identified above by virtue of an Assignment from the inventor(s) of the patent application/patent identified above. A copy of the Assignment is attached and/or was recorded in the Patent and Trademark Office at Reel \_\_\_\_\_, Frame\_\_\_\_\_. The undersigned (whose title is supplied below) is empowered to sign this statement on behalf of the Assignee.

Respectfully submitted,

SEAGATE TECHNOLOGY LLC  
(Assignee of Entire Interest)

19 March 2001  
Date

Shawn B. Dempster, Reg. No. 34,321  
Senior Director of Intellectual Property  
Product and Technology Development  
SEAGATE TECHNOLOGY LLC  
Intellectual Property Dept. - SHK2LG  
1280 Disc Drive  
Shakopee, MN 55379-1863  
(952) 402-2517 (telephone)  
(952) 402-2657 (facsimile)

**ASSIGNMENT**

WHEREAS, we, Tony Chun-Hung Huang, residing at 1221 Fall River Circle, Longmont, Colorado 80501, and Hai Thanh Ho, residing at 9724 Kipling Street, Westminster, Colorado 80021, are the inventors of an invention entitled DIGITAL SINE/COSINE WAVE GENERATOR that is the subject matter for an application for Letters Patent which is identifiable in the United States Patent and Trademark Office by Serial No. \_\_\_\_\_, filed \_\_\_\_\_; and

WHEREAS, Seagate Technology LLC, a limited liability company organized and existing under and by virtue of the laws of the State of Delaware and the United States of America, and having offices at 920 Disc Drive, Scotts Valley, California 95067 (hereinafter "Assignee"), is desirous of acquiring the entire right, title and interest in and to the invention, the applications, and any and all Letters Patent or similar foreign or domestic legal protection;

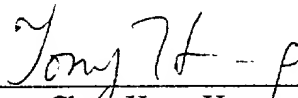
NOW THEREFORE, for good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, we transfer to Assignee, its successors and assigns, our entire right, title and interest in and to the invention, the above-identified applications, all provisional applications from which any of the above-identified applications claim priority, corresponding domestic and foreign applications, any continuation, division, renewal, or substitute for the applications, all Letters Patent, any reissue, re-examination, or similar legal protection issuing related to the Letters Patent, and all rights and benefits under any applicable treaty or convention; and we authorize the Director of the United States Patent and Trademark Office or foreign equivalent to issue the Letters Patent or similar legal protection to the Assignee.

We authorize the Assignee, its successors and assigns, to insert in this instrument the filing date(s) and serial numbers of the application when ascertained. We further authorize the Assignee, its successors and assigns, or anyone it may properly designate, to apply for Letters Patent or similar legal protection, in its own name if desired, in any and all foreign countries and appoint Assignee the common representative in the above-identified international application and any international application for the invention.

We represent to the Assignee, its successors and assigns, that we have not and shall not execute any writing or do any act whatsoever conflicting with this Assignment. We and our executors or administrators will at any time upon request, without additional consideration, but at

the expense of the Assignee, its successors and assigns, execute and deliver to Assignee or its legal representatives such additional writings and do such additional acts as the Assignee, its successors and assigns. may deem desirable to perfect its enjoyment of this grant, and render all assistance in making application for and obtaining, maintaining, and enforcing the letters Patent or similar legal protection on the invention in any and all countries, including without limitation providing testimony in any related interference litigation or proceeding.

IN TESTIMONY WHEREOF, I have hereunto set my hand this 16<sup>th</sup> day of March, 2001.

  
\_\_\_\_\_  
Tony Chun-Hung Huang

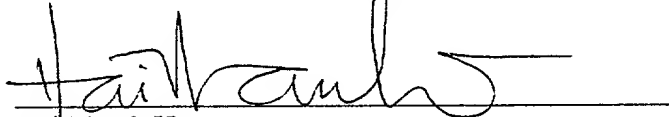
STATE OF COLORADO     )  
  )ss:  
COUNTY OF Boulder     )

On this 16<sup>th</sup> day of March, 2001, before me personally appeared Tony Chun-Hung Huang, to me known to be the person described in, and who executed the foregoing instrument, and acknowledged to me that he/she executed the same for the uses and purposes therein set forth.

[SEAL]

  
\_\_\_\_\_  
Notary Public

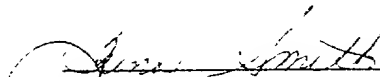
IN TESTIMONY WHEREOF, I have hereunto set my hand this 16<sup>th</sup> day of March, 2001.

  
\_\_\_\_\_  
Hai Thanh Ho

STATE OF COLORADO     )  
  )ss:  
COUNTY OF Boulder     )

On this 16<sup>th</sup> day of March, 2001, before me personally appeared Hai Thanh Ho, to me known to be the person described in, and who executed the foregoing instrument, and acknowledged to me that he/she executed the same for the uses and purposes therein set forth.

[SEAL]

  
\_\_\_\_\_  
Notary Public